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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

.KIM, JUNG W

ART UNIT PAPER NUMBER

2132

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/843,291

Applicant(s)

ALLEN ET AL.

Examiner

Jung W. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 March 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 04/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-22 have been examined.
2. Claims 1-4, 6-12 and 14-22 have been amended.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Response to Amendment***

4. The objection to claim 7 is withdrawn, as the amendment overcomes the objection.

### ***Response to Arguments***

5. Applicant's arguments with respect to amended claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

### ***Drawings***

6. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings are informal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The

requirement for corrected drawings will be held in abeyance until a notice of allowance is mailed.

### ***Specification***

7. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: "Method and system for authenticating a service request using a line identifier associated with a port of a remote authentication server".

### ***Claim Rejections - 35 USC § 103***

8. Claims 1, 4, 6, 8, 9, 12, 14, 15, 17-19, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rigney et al. RFC 2865 "Remote Authentication Dial In User Service (RADIUS)" (hereinafter Rigney) in view of Laursen et al. U.S. Patent No. 6,233,608 (hereinafter Laursen) and admitted prior art under the "Background of the Specification" and figure 1 of the instant Specification (hereinafter admission).

9. As per claim 1, Rigney discloses a method for providing a port value to a service provider, comprising:

- a. receiving a service request from a subscriber, which includes a subscriber identifier, on a port and transferring the subscriber identifier and the port value to the service provider for authentication of the subscriber (see Rigney, sec. 2, 1<sup>st</sup> paragraph);

- b. authenticating a service request based on the port value and subscriber identifier at the service provider (see Rigney, sec. 2, 3<sup>rd</sup> paragraph).

10. Rigney does not expressly disclose associating a line identifier with the port assigned to a subscriber wherein the line identifier is usable to authenticate a service request. Laursen discloses associating a line identifier with an IP address and port number wherein the line identifier is stored in a database, retrieved from the database in response to a service request, and the line identifier is transferred to the service provider; wherein the service provider uses the line identifier to authenticate the service request. See Laursen, fig. 2.b; col. 7:36-8:31. It would be obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Laursen to the method of Rigney since it securely establishes a unique mapping between a subscriber's line and authentication information associated with the subscriber to link a subscriber's request with an IP address and port value as known to one of ordinary skill in the art and as taught by Laursen. Ibid.

11. Finally, Rigney does not disclose the service provider to be a broadband internet service provider, the subscriber to be a subscriber of broadband internet service, wherein the service request is made via a broadband internet connection. Admission discloses prior art broadband access network systems wherein subscribers to broadband internet service dynamically select a broadband internet service provider, wherein the subscriber is authenticated by means of a RADIUS server. Specification, pg. 2. Hence, it would be obvious to one of ordinary skill in the art at the time the invention was made for the authentication steps using a RADIUS protocol to be

incorporated in a broadband access network system since it enables proven authentication methodologies to be incorporated in new network access technologies. Specification, pg. 1. The aforementioned cover the limitations of claim 1.

12. As per claims 4 and 8, Rigney teaches a method as outlined above in the claim 1 rejection under 35 U.S.C. 103(a). In addition, the service request is authenticated by the provider based on the subscriber identifier and the line identifier. Rigney, sec. 2, 3<sup>rd</sup> paragraph; Laursen, fig. 2.b. The aforementioned cover the limitations of claims 4 and 8.

13. As per claim 6, Rigney teaches a method as outlined above in the claim 4 rejection under 35 U.S.C. 103(a). In addition, the subscriber identifier and the line identifier are transferred together to the provider. See Rigney as modified by Laursen and admission, *ibid*. The aforementioned cover the limitations of claim 6.

14. As per claim 9, it is a claim corresponding to claim 1 and it does not teach or define above the information claimed in claim 1. Therefore, claim 9 is rejected as being unpatentable over Rigney in view of Laursen and admission for the same reasons set forth in the rejection of claim 1.

15. As per claims 12, 14 and 15, Rigney teaches a method as outlined above in the claim 1 rejection under 35 U.S.C. 103(a). In addition, a remote access server (network

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access server) associates the line identifier with the port, and stores and retrieves the line identifier for authentication of a service request. Rigney, sec. 1, Introduction, as modified by Laursen and admission, *ibid.* In addition, a remote access server in the context of the invention taught by Rigney, Laursen and admission necessarily includes a port, a management interface, a database interface and a network interface for the corresponding steps outlined above. The aforementioned cover the limitations of claims 12, 14 and 15.

16. As per claims 17-19, Rigney teaches a method as outlined above in the claim 6, 12, 14 and 15 rejections under 35 U.S.C. 103(a). In addition, the subscriber unit is configured to present a user interface for selecting the network service. See Rigney as modified by Laursen, fig. 2.b, ref. no. 106 and admission, *ibid.* The aforementioned cover the limitations of claims 17-19.

17. As per claim 21, it is a claim corresponding to claim 1 and it does not teach or define above the information claimed in claim 1. Therefore, claim 21 is rejected as being unpatentable over Rigney in view of Laursen and admission for the same reasons set forth in the rejection of claim 1.

18. As per claim 22, Rigney teaches a method as outlined above in the claim 12 and 17-19 rejections under 35 U.S.C. 103(a). In addition, the authentication system is

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disclosed as using a broadband network. See Rigney, sec. 5.41, values 11-17. The aforementioned cover the limitations of claim 22.

19. Claims 2, 3, 5, 7, 10, 11, 13, 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rigney in view of Laursen and admission, and further in view of Stallings Cryptography and Network Security (hereinafter Stallings).

20. As per claims 2 and 3, Rigney teaches a method as outlined above in the claim 1 rejection under 35 U.S.C. 103(a). Rigney does not expressly disclose authenticating the line identifier after first authenticating the subscriber identifier at the service provider. Stallings teaches an exchange wherein a second set of authentication values is submitted in a separate transaction from a first set of authentication values. See Stallings, page 431, Table 13.4 (c), wherein a nonce is the first set and id of the sender is the second set. It would be obvious to one of ordinary skill in the art at the time the invention was made to authenticate a subscriber identifier at the service provider and query the database in response to the authenticated subscriber identifier to retrieve the line identifier therefrom to separate the two authentication inquiries such that the later authentication set is not revealed until the first authentication step successfully transpires for a more secure authentication methodology. See Stallings, page 430, 'The Authentication Only Exchange', second to last paragraph. The aforementioned cover the limitations of claims 2 and 3.

21. As per claim 5, it is a claim corresponding to claims 2-4 and it does not teach or define above the information claimed in claims 2-4. Therefore, claim 5 is rejected as being unpatentable over Rigney in view of Laursen, admission and Stallings for the same reasons set forth in the rejections of claims 2-4.

22. As per claim 7, Rigney teaches a method as outlined above in the claim 5 rejection under 35 U.S.C. 103(a). In addition, the subscriber identifier and the line identifier are transferred separately to the provider. See Rigney as modified by Laursen, admission and Stallings, *ibid*. The aforementioned cover the limitations of claim 7.

23. As per claims 10 and 11, they are claims corresponding to claims 2 and 3, and they do not teach or define above the information claimed in claims 2 and 3. Therefore, claims 10 and 11 are rejected as being unpatentable over Rigney in view of Laursen, admission and Stallings for the same reasons set forth in the rejections of claims 2 and 3.

24. As per claim 13, it is a claim corresponding to claims 2 and 12, and it does not teach or define above the information claimed in claims 2 and 12. Therefore, claim 13 is rejected as being unpatentable over Rigney in view of Laursen, admission and Stallings for the same reasons set forth in the rejections of claims 2 and 12.

25. As per claim 16, it is a claim corresponding to claims 7 and 14, and it does not teach or define above the information claimed in claims 7 and 14. Therefore, claim 16 is rejected as being unpatentable over Rigney in view of Laursen, admission and Stallings for the same reasons set forth in the rejections of claims 7 and 14.

26. As per claim 20, it is a claim corresponding to claims 7 and 18, and it does not teach or define above the information claimed in claims 7 and 18. Therefore, claim 20 is rejected as being unpatentable over Rigney in view of Laursen, admission and Stallings for the same reasons set forth in the rejections of claims 7 and 18.

### ***Conclusion***

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W. Kim whose telephone number is (571) 272-3804. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jung W Kim  
Examiner  
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April 21, 2005



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